

1. Product and Company Identification

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Product Name Zinc Oxide Catalyst
Part Number RXSOL-95-6592-026

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

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2. Composition / Information on ingredients

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Chemical Name	CAS	EC number	Weight	Formula
Zinc oxide	1314-13-2	215-222-5	1.000 °C at ca.1.013,25 hPa	
Boiling Point	No data available			
Flash Point	No data available			
Evaporation Rate	Not Applicable			
Flammability (solid, gas)	No data available			
Explosive limits	No Data Available			
Upper/lower flammability or explosive limits	No data available			
Autoignition temperature	No data available			
Decomposition temperature	No data available			
Vapour pressure	No data available			
Density	5,68 g/cm ³ at 22 °C			
Relative Density	5,68 at 22 °C			
Freezing point	No data available			
Specific Gravity	No data available			
Partition coefficient	No data available			
Explosive properties	No data available			
Solubility	0,0029 g/l at 20 °C			
Ignition temperature	No information available.			
Particle characteristics	No data available			

10. Stability and reactivity

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Reactivity	No data available
Stability	The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions	Violent reactions possible with: hydrogen peroxide magnesium
Conditions to avoid	No data available
Incompatible materials	No data available
Hazardous Polymerization	In the event of fire: see section 5

Acute toxicity	LD50 Oral - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 423) LC50 Inhalation - Rat - male and female - 4 h - > 1,79 mg/l - dust/mist (US-EPA) LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402)
Skin corrosion/irritation	Skin - reconstructed human epidermis (RhE) Result: No skin irritation - 1 h (OECD Test Guideline 431)
Serious eye damage/eye irritation	Eyes - Bovine cornea Result: No eye irritation - 4 h (OECD Test Guideline 437)
Respiratory or skin sensitization	Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406)
Carcinogenicity	No data available
Germ cell mutagenicity	Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: Positive results were obtained in some in vitro tests. Test Type: Chromosome aberration test in vitro Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative Test Type: Chromosome aberration test in vitro Test system: Human lymphocytes Metabolic activation: without metabolic activation Result: positive Remarks: (ECHA) Test Type: Micronucleus test Test system: Human epithelioid cells Metabolic activation: without metabolic activation Method: OECD Test Guideline 487 Result: negative Test Type: In vivo micronucleus test Species: Mouse Cell type: Red blood cells (erythrocytes) Application Route: Intraperitoneal Method: OECD Test Guideline 474 Result: negative
Reproductive toxicity	Suspected of damaging the unborn child. Suspected human reproductive toxicant
Specific target organ toxicity - single exposure	No data available
Special Remarks on other Toxi Effects on Humans	Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Eyes: Causes eye irritation. Ingestion: Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, and diarrhea. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May cause chemical pneumonitis and pulmonary edema, inflammation, edema of bronchi and larynx. Chronic Potential Health Effects: Repeated or prolonged skin exposure may cause allergic reactions in sensitive individuals. Repeated or prolonged exposure by inhalation may affect respiration and metabolism.
Additional Information	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - NOAEL (No observed adverse effect level) - 31,52 mg/kg Remarks: (in analogy to similar products) Repeated dose toxicity - Rat - male - Inhalation - 3 Months Repeated dose toxicity - Rat - male and female - Dermal - 28 d - LOAEL (Lowest observed adverse effect level) - 75 mg/kg RTECS: ZH4810000 Zinc oxide dust or fume can irritate the respiratory tract. Prolonged skin contact can produce a severe dermatitis called oxide pox. Exposure to high levels of dust or fume can cause metallic taste, marked thirst, coughing, fatigue, weakness, muscular pain, and nausea followed by fever and chills. Severe overexposure may result in bronchitis or pneumonia with a bluish tint to the skin., prolonged or repeated exposure can cause:, Reversible liver enzyme abnormalities., Diarrhea To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. The following applies to zinc compounds in general: only slightly absorbable via the gastrointestinal

tract. Adstringent effect on mucous membranes. Metal-fume fever after inhalation of large quantities. Handle in accordance with good industrial hygiene and safety practice

12. Ecological information

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Persistence and degradability	The methods for determining the biological degradability are not applicable to inorganic substances.
Toxicity to fish	Semi-static test LC50 - Danio rerio (zebra fish) - 2,525 mg/l - 96 h Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates	Static test EC50 - Daphnia magna (Water flea) - 1 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to bacteria	Static test EC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)
Toxicity to algae	Static test NOEC - Pseudokirchneriella subcapitata (microalgae) - 0,024 mg/l - 72 h (OECD Test Guideline 201)
Eco Toxicity	Not Available
Products Biodegradation	The methods for determining the biological degradability are not applicable to inorganic substances.
Mobility in soil	No Information available
Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other adverse effects	No data available

13. Disposal considerations

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Disposal methods	The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.
Contaminated packaging	Dispose of as unused product.
Waste treatment Method	See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

14. Transport information

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UN number	ADR/RID:3077 IMDG: 3077 IATA: 3077
UN proper shipping name	ADR/RID:Environmentally hazardous substance, solid, n.o.s. (Zinc oxide) IMDG:Environmentally hazardous substance, solid, n.o.s. (Zinc oxide) IATA:Environmentally hazardous substance, solid, n.o.s. (Zinc oxide)
Transport hazard class(es)	ADR/RID:9 IMDG:9 IATA: 9
Packaging group	ADR/RID: III IMDG: III IATA: III
Environmental hazards	ADR/RID: No IMDG: No IATA: No
Special precautions for user	Tunnel restriction code : (C/E)
Further information	Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

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Safety, health and environmental regulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
National legislation	Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : ENVIRONMENTAL HAZARDS : ENVIRONMENTAL HAZARDS
Other regulations	Take note of Dir 94/33/EC on the protection of young people at work.
Chemical Safety Assessment	For this product a chemical safety assessment was not carried out

16. Other information

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Other Information	<p>The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.</p> <p>DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.</p>
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